

Denver Division- Colorado

DJ - Hereford Ranch

Windmill 07-26H

Windmill 07-26H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

21 June, 2011

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Windmill 07-26H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4663.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4663.00ft (TBD)
Site:	Windmill 07-26H	North Reference:	True
Well:	Windmill 07-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Project	DJ - Hereford Ranch, Weld County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site		Windmill 07-26H			
Site Position:		Northing:	382,288.79 ft	Latitude:	40° 22' 35.648 N
From:	Lat/Long	Easting:	2,334,982.12 ft	Longitude:	104° 17' 51.529 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.78 deg

Well	Windmill 07-26H					
Well Position	+N-S	0.00 ft	Northing:	382,288.79 ft	Latitude:	40° 22' 35.648 N
	+E-W	0.00 ft	Easting:	2,334,982.12 ft	Longitude:	104° 17' 51.529 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,641.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (deg)	Dip Angle (deg)	Field Strength (nT)
	IGRF200510	6/21/2011	8.56	67.12	53,189

Design	APD Directional Plan				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (deg)	
	0.00	0.00	0.00	152.55	

Plan Sections										
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)	TFO (deg)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,739.53	0.00	0.00	5,739.53	0.00	0.00	0.00	0.00	0.00	0.00	
6,489.54	90.00	152.55	6,217.00	-423.71	220.10	12.00	12.00	0.00	152.55	
10,562.83	90.00	152.55	6,217.00	-4,038.42	2,097.75	0.00	0.00	0.00	0.00	Windmill 07-26H (B)

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Windmill 07-26H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4663.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4663.00ft (TBD)
Site:	Windmill 07-26H	North Reference:	True
Well:	Windmill 07-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey									
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
9-5/8"									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Windmill 07-26H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4663.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4663.00ft (TBD)
Site:	Windmill 07-26H	North Reference:	True
Well:	Windmill 07-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey									
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,739.53	0.00	0.00	5,739.53	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	7.26	152.55	5,799.84	-3.39	1.76	3.82	12.00	12.00	0.00
5,900.00	19.26	152.55	5,897.00	-23.70	12.31	26.71	12.00	12.00	0.00
6,000.00	31.26	152.55	5,987.27	-61.50	31.94	69.30	12.00	12.00	0.00
6,100.00	43.26	152.55	6,066.72	-115.12	59.80	129.73	12.00	12.00	0.00
6,200.00	55.26	152.55	6,131.87	-182.23	94.66	205.35	12.00	12.00	0.00
6,300.00	67.26	152.55	6,179.87	-259.90	135.00	292.87	12.00	12.00	0.00
6,400.00	79.26	152.55	6,208.63	-344.72	179.06	388.45	12.00	12.00	0.00
6,489.54	90.00	152.55	6,217.00	-423.71	220.10	477.47	12.00	12.00	0.00
7"									
6,500.00	90.00	152.55	6,217.00	-433.00	224.92	487.93	0.00	0.00	0.00
6,600.00	90.00	152.55	6,217.00	-521.74	271.02	587.93	0.00	0.00	0.00
6,700.00	90.00	152.55	6,217.00	-610.48	317.11	687.93	0.00	0.00	0.00
6,800.00	90.00	152.55	6,217.00	-699.22	363.21	787.93	0.00	0.00	0.00
6,900.00	90.00	152.55	6,217.00	-787.96	409.31	887.93	0.00	0.00	0.00
7,000.00	90.00	152.55	6,217.00	-876.71	455.40	987.93	0.00	0.00	0.00
7,100.00	90.00	152.55	6,217.00	-965.45	501.50	1,087.93	0.00	0.00	0.00
7,200.00	90.00	152.55	6,217.00	-1,054.19	547.60	1,187.93	0.00	0.00	0.00
7,300.00	90.00	152.55	6,217.00	-1,142.93	593.69	1,287.93	0.00	0.00	0.00
7,400.00	90.00	152.55	6,217.00	-1,231.67	639.79	1,387.93	0.00	0.00	0.00
7,500.00	90.00	152.55	6,217.00	-1,320.41	685.89	1,487.93	0.00	0.00	0.00
7,600.00	90.00	152.55	6,217.00	-1,409.16	731.98	1,587.93	0.00	0.00	0.00
7,700.00	90.00	152.55	6,217.00	-1,497.90	778.08	1,687.93	0.00	0.00	0.00
7,800.00	90.00	152.55	6,217.00	-1,586.64	824.18	1,787.93	0.00	0.00	0.00
7,900.00	90.00	152.55	6,217.00	-1,675.38	870.27	1,887.93	0.00	0.00	0.00
8,000.00	90.00	152.55	6,217.00	-1,764.12	916.37	1,987.93	0.00	0.00	0.00
8,100.00	90.00	152.55	6,217.00	-1,852.86	962.47	2,087.93	0.00	0.00	0.00
8,200.00	90.00	152.55	6,217.00	-1,941.61	1,008.57	2,187.93	0.00	0.00	0.00
8,300.00	90.00	152.55	6,217.00	-2,030.35	1,054.66	2,287.93	0.00	0.00	0.00
8,400.00	90.00	152.55	6,217.00	-2,119.09	1,100.76	2,387.93	0.00	0.00	0.00
8,500.00	90.00	152.55	6,217.00	-2,207.83	1,146.86	2,487.93	0.00	0.00	0.00
8,600.00	90.00	152.55	6,217.00	-2,296.57	1,192.95	2,587.93	0.00	0.00	0.00
8,700.00	90.00	152.55	6,217.00	-2,385.31	1,239.05	2,687.93	0.00	0.00	0.00
8,800.00	90.00	152.55	6,217.00	-2,474.06	1,285.15	2,787.93	0.00	0.00	0.00
8,900.00	90.00	152.55	6,217.00	-2,562.80	1,331.24	2,887.93	0.00	0.00	0.00
9,000.00	90.00	152.55	6,217.00	-2,651.54	1,377.34	2,987.93	0.00	0.00	0.00
9,100.00	90.00	152.55	6,217.00	-2,740.28	1,423.44	3,087.93	0.00	0.00	0.00
9,200.00	90.00	152.55	6,217.00	-2,829.02	1,469.53	3,187.93	0.00	0.00	0.00
9,300.00	90.00	152.55	6,217.00	-2,917.76	1,515.63	3,287.93	0.00	0.00	0.00
9,400.00	90.00	152.55	6,217.00	-3,006.51	1,561.73	3,387.93	0.00	0.00	0.00
9,500.00	90.00	152.55	6,217.00	-3,095.25	1,607.82	3,487.93	0.00	0.00	0.00
9,600.00	90.00	152.55	6,217.00	-3,183.99	1,653.92	3,587.93	0.00	0.00	0.00
9,700.00	90.00	152.55	6,217.00	-3,272.73	1,700.02	3,687.93	0.00	0.00	0.00
9,800.00	90.00	152.55	6,217.00	-3,361.47	1,746.11	3,787.93	0.00	0.00	0.00
9,900.00	90.00	152.55	6,217.00	-3,450.21	1,792.21	3,887.93	0.00	0.00	0.00
10,000.00	90.00	152.55	6,217.00	-3,538.96	1,838.31	3,987.93	0.00	0.00	0.00
10,100.00	90.00	152.55	6,217.00	-3,627.70	1,884.40	4,087.93	0.00	0.00	0.00
10,200.00	90.00	152.55	6,217.00	-3,716.44	1,930.50	4,187.93	0.00	0.00	0.00

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Windmill 07-26H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4663.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4663.00ft (TBD)
Site:	Windmill 07-26H	North Reference:	True
Well:	Windmill 07-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey									
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
10,300.00	90.00	152.55	6,217.00	-3,805.18	1,976.60	4,287.93	0.00	0.00	0.00
10,400.00	90.00	152.55	6,217.00	-3,893.92	2,022.69	4,387.93	0.00	0.00	0.00
10,500.00	90.00	152.55	6,217.00	-3,982.66	2,068.79	4,487.93	0.00	0.00	0.00
10,562.83	90.00	152.55	6,217.00	-4,038.42	2,097.75	4,550.76	0.00	0.00	0.00
Windmill 07-26H (BHL)									

Design Targets									
Target Name	Dip Angle (deg)	Dip Dir. (deg)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Windmill 07-26H (BHL)	0.00	0.00	6,217.00	-4,038.42	2,097.75	378,279.19	2,337,134.43	40° 21' 55.739 N	104° 17' 24.428 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
800.00	800.00	9-5/8"	9-5/8	13-1/2	
6,489.54	6,217.00	7"	7	8-3/4	
10,562.83	6,217.00	4 1/2"	4-1/2	6	

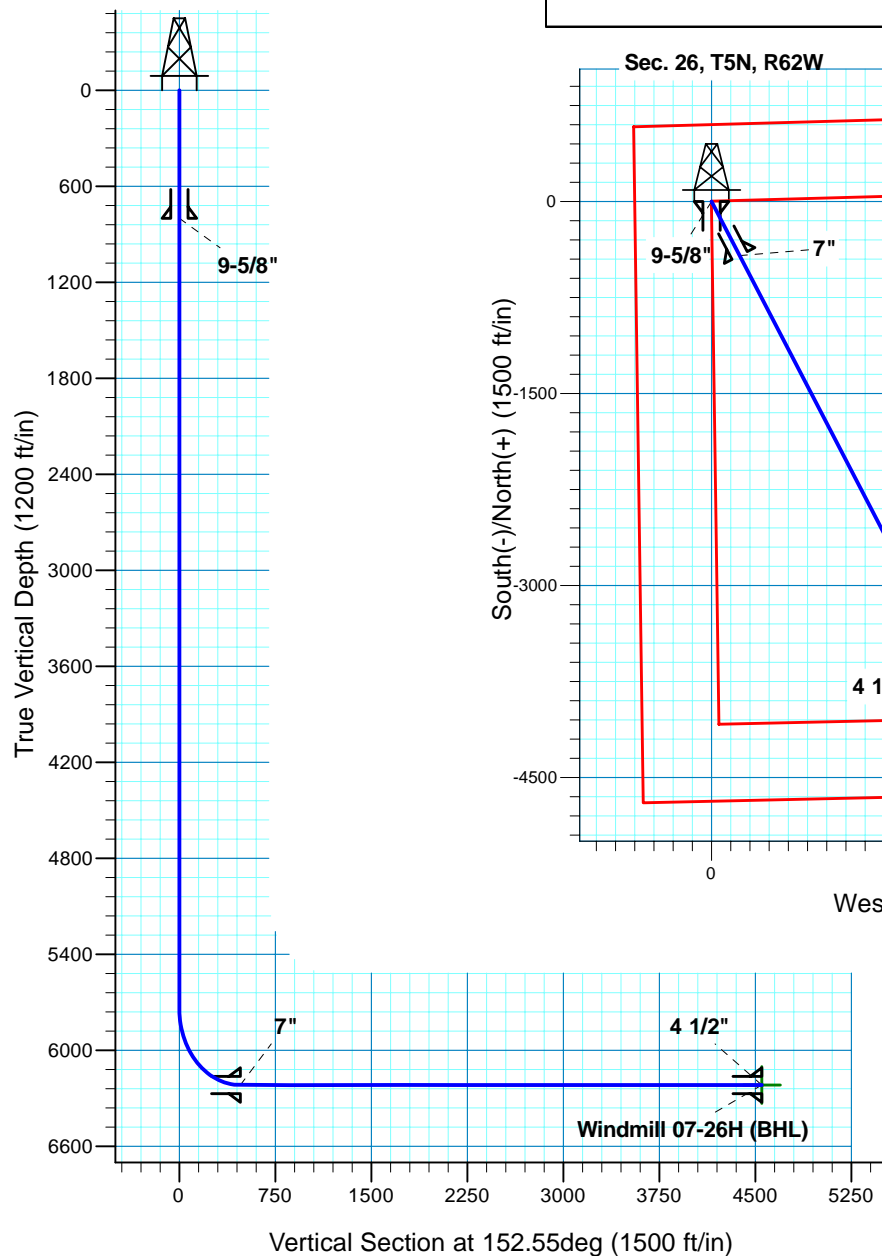
Windmill 07-26H

Section 26 T5N R62W

Weld County, CO

Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501
Ground Elevation: 4641.00 RIG @ 4663.00ft (TBD)
Northing Easting Latitude Longitude
382288.79 2334982.12 40° 22' 35.648 N 104° 17' 51.529 W



T M
Azimuths to True North
Magnetic North: 8.56°
Magnetic Field
Strength: 53189.4snT
Dip Angle: 67.12°
Date: 6/21/2011
Model: IGRF200510

Project: DJ - Hereford Ranch
Site: Windmill 07-26H
Well: Windmill 07-26H
Plan: APD Directional Plan

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5739.53	0.00	0.00	5739.53	0.00	0.00	0.00	0.00	0.00	
3	6489.54	90.00	152.55	6217.00	-423.71	220.10	12.00	152.55	477.47	
4	10562.83	90.00	152.55	6217.00	-4038.42	2097.75	0.00	0.00	4550.76	Windmill 07-26H (BHL)

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Windmill 07-26H (BHL)	6217.00	-4038.42	2097.75	378279.19	2337134.43	40° 21' 55.739 N	104° 17' 24.428 W	Point